

An interview with Herman A. Moench ①

HERMAN A. MOENCH

An Interview Conducted by  
Martin Plascak  
April 18, 1980

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# NARRATOR DATA SHEET

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DATE

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Birthdate: 08/11/08 Birthplace: Terre Haute, IN

Length of residence in Terre Haute: approx. 70 years

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B.S. in Electrical Engineering, 1929; Univ. of Michigan,  
M.S.E. (E.E.) 1935; Dr. of Engrg, R.P.I., 1971

Occupational history: Member technical staff, Bell Telephone  
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1930; Professor, Head of E.E. Dept., Dean of Faculty, Acting  
President, '58-'59 and '61-62; Senior V.P., Rose-Hulman  
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Special interests, activities, etc. Amateur radio, tennis,  
photography. Rotary Club Board, United Way Board,  
Goodwill Industries Board, Vigo County Civil Defense  
Council Chairman.

Major subject(s) of interview: Terre Haute's first radio  
broadcasting station

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## Interviewing sessions:

<u>Date</u>	<u>Time</u>	<u>Location</u>	<u>Interviewer</u>
04/18/80			Martin Plascak

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Professor HERMAN MOENCH

April 18, 1980

Office of Prof. Moench, Rose-Hulman Institute of Technology,  
5500 Wabash Ave., Terre Haute, IN 47803

INTERVIEWER: Martin Plascak

TRANSCRIBER: Nancy Bettinghaus

For: Vigo County Oral History Program

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MP: This is an oral history project on early radio broadcasting in Terre Haute in Vigo County. The person being interviewed is Professor Herman Moench of Rose-Hulman Institute of Technology. The person doing the interviewing is Martin Plascak. The date is April 18, 1980. It is 10:15 in the morning. The interview is taking place in the office of Professor Moench on the Rose campus.

Professor Moench, as we know it, the first radio broadcasting station in Terre Haute and Vigo County began on the Rose campus in the late 1920s. What were the circumstances and events leading up to the establishment of the station here on the campus?

MOENCH: The earliest recollection I have goes back to the time when I was a student here at what was then Rose Polytechnic Institute. Beginning in about 1922, there were, of course, broadcasting stations that you could hear with programs coming from KDKA in Pittsburgh and WLW over in Cincinnati and so on. There was a great lot of enthusiasm among what we called "broadcast listeners" in those days, and there were BCL (broadcast listener) clubs which were rather unique. This hobby has not existed for many years, but for a time people liked to get together in actual called meetings to talk to each other about what programs they had heard and what distant stations they had picked up, such as PWX in Havana and so on.

One of the most enthusiastic participants and organizers of this sort of thing was Mr. Carl Stahl, who was then the proprietor of the Stahl-Urban Company which manufactured mostly overalls and work clothing. (Incidentally, that particular building is still standing, and it is the home of WTHI.) The enthusiasm was sufficient that there was a movement to get some kind of a broadcasting station here in Terre Haute. The people in town have always been supportive of Rose and so the question arose whether, possibly, the experimental-type broadcasting station might not be located out here on the campus.

MOENCH: One of the student activities which had been going on for three or four years ahead of that time was a Rose Tech radio club [which was] made up of young men who were students interested in not just listening but also transmitting on radio bands as radio amateurs. We still have such a club by the same name, and it's quite active.

As I recall it, about the time I was a sophomore, which would have been in 1926 since I came on campus as a freshman from Wiley High School in 1925 in September . . . in 1926, there was definitely a push to get a license from what was then the [Department of Commerce] rather than the FCC. Mr. Stahl and, I believe, Mr. A. L. Stadermann, who was then chief engineer of the local telephone company, The Citizens' Independent Telephone Company, must have assisted in getting a favorable action on a broadcast station license issued to Rose Polytechnic Institute under the call letters WRPI for Rose Polytechnic Institute.

And since there was not sufficient expertise here on the campus to really make this sort of thing go from scratch, the group that was backing it [together with] Mr. Stahl were instrumental in getting some funds from the local people to get some kind of a station going. They went on to engage the part-time services of a licensed commercial radio operator who came over, as I recall it, from Martinsville on his off time in order to put together the first transmitter which had some 50-watt tubes. In fact, there is a description in one of the early issues of the Rose Technic, which was then a monthly publication put out by the students of Rose. There is an article in the April of 1927 issue beginning on page 12 entitled "The New Rose Experimental Broadcasting Station" written by Charles N. Cutler, who was an electrical engineering student. He was graduated in 1928, in June.

It might be interesting to read a paragraph or two of this [article]. "A glimpse into the radio shack at Rose is ample proof that the new broadcasting station is no longer a dream but a reality." Remember this was in April, 1927, so it was written after the station had been in operation for some time.

"The Rose radio club was organized approximately three years ago for the purpose of promoting interest

MOENCH: "in that hobby. It was suggested at that time that the ideal location for an experimental transmitter would be right here at Rose. Such a technical school was certainly the logical institution to own and operate a broadcasting station. The proximity of the school to a city the size of Terre Haute would make this location especially advantageous. The location of the school relative to the city of Terre Haute brought up two important considerations. First, Terre Haute could and should furnish a variety of musical talent and entertainment that would be worth broadcasting; and second, the distance from any large buildings in the business district would eliminate possible troublesome absorption of the carrier waves. This would allow the listeners in the surrounding districts to tune in on a transmitting wave so sharp as to get away from harmonics and heterodyning on other frequencies. Another idea to be considered as a fact is that if such a station were to be established on the campus, there would be plenty of room for conducting radio experiments. With an increase in membership in the club came increased interest in the proposed station, and a small 10-watt transmitter was finally wired together from old and out-of-date parts which had been donated to the club. The limited range of this transmitter made it only suitable for experimental work, and the signals were not of sufficient intensity to stir up any large amount of interest among the distant radio listeners. The talent at this time consisted chiefly of canned music which was better known as phonograph records.

"Along about this time, Carl Stahl, one of the most enthusiastic radio fans interested in the station, organized the Rose Broadcasters Association for the purpose of creating and promoting sufficient interest in the project to make it an absolute success. When the response of the local listeners to the radio fund proved that they endorsed a local station, the association immediately made plans and ordered the new equipment for a 100-watt transmitter. Along with the many financial contributions came the donation of space in the Deming Hotel for a studio as well as a Baldwin grand piano similar to that used in many other stations.

"With the arrival of six new 50-watt tubes, and the necessary transformers, sockets, chokes, and condensers, work was begun on the assembly of

MOENCH: "the new transmitter on the hard maple frame which already had been made by the students in the wood shop."

I might digress a moment to say personally that that was part of my job. Roger Mace and I who were both in the same class -- both Terre Haute boys who graduated from Wiley -- were given the job of building a fairly good-sized wooden frame. It stood almost six feet tall, as I recall it, and was about three feet wide and three feet deep. We found some hard maple posts about 2 inches by 2 inches to set up on the corners and then doweled in the various supporting pieces of wood so that hard rubber panels could be screwed to the front of it. Mounted on the panels were meters with holes to look at the tube filaments. This, I'm fairly confident, must have taken place in late 1926, probably around the winter of 1926.

Then going back to this excerpt from the article by Mr. Cutler in the Rose Technic:

"The circuit employed was that of the Hartley oscillator with a Heising system of modulation and a speech amplifier." The two 50-watt modulators provided speech modulation of the carrier wave. "On the front of the 3- by 6-foot transmitting frame were placed two black hard rubber panels, one 17 inches wide at the top and in the middle a similar panel 12 inches wide. Below was a panel holding both Kenotron (again, an interpolation here, that was a rectifier tube) and transmitting tube filament meters as well as filament control push-button type switches. On this panel under each meter was mounted a carbon disc transmitting Bradleystat (which is a certain kind of rheostat popular at that time) to insure critical adjustment of the filament voltages."

This is a great lot of technical material which I don't think really has much to do with the historical part, but it does outline here how various parts of the equipment were built by Bob Ferris and Bill Harris of the radio club. They were two years ahead of me. It's kind of interesting that both of them had rather remarkably fine careers later on in radio -- Bill Harris with the RCA Laboratories in Harrison, New Jersey, where he



MOENCH: developed, particularly, some important new types of pencil radio tubes later and Bob Ferris went on to get his Doctor's degree and was teaching [as a professor of electrical engineering] at South Carolina at one time.

Well! The rest of this has to do with how the antenna was put together. [It was a] flat top antenna with full counterpoise. They tested it out at something near 216 meters of 1388.9 kilocycles, which isn't too far from the frequency which later was used when the station became WBOW. And the way that happened was that (going back to the work of the radio club itself) when the station was put on the air, a couple of guyed steel poles -- that is, guy wires -- [were used] to hold them up. I think they were about 60 or 70 feet high, above the lower lake on the campus here. There was a small building about the size of this room, maybe a little bigger, say about 15 x 15 feet. It was built especially to house the radio transmitter. Telephone lines were used, one coming over here to the main building of Rose Poly and the other later on going into Terre Haute to bring out the program material from there, because, you remember, they mentioned the studio [was] at the Deming Hotel.

Initially, all of the programming was done right here from Rose Polytechnic Institute, and I recall serving as an announcer on one occasion (laughs) -- several, I think. [There was] one in particular where we were trying to broadcast as a sports announcer a basketball game that was going on up in the old gymnasium, which is now the auditorium here at Rose. We had an old piano up there, and the difficult part was not announcing the game, although I knew very little about basketball when I was supposed to do it, but it was hard to fill in the gaps in between the actual periods of play. And so, in order to do that, Clifford Lamb, who was a year later in his class and an old friend of mine, could play one piece on the piano. So we would have him play that piece on the piano and somebody would talk for a few minutes. Then he would play it again. (laughs) So this was the way we filled up some time on the air.

MP: Well, Professor Moench, you told us about where the transmitter was located here on the Rose campus which was down, I guess, by your lake area. Where was the actual physical facility, so far as the . . . .

MP: Where were the actual programs emanated? The actual broadcasting?

MOENCH: There was no room. There was not even a desk. All that we had, of course, was a small amplifier and an old microphone and a pair of wires coming across the campus from over by the lake. That is, there was no studio on the campus as such, so that when we wanted to broadcast a basketball game, we would run the wires up to the basketball floor. We set up in the west end of the gymnasium . . . just talking into a microphone. That was it.

MP: And from this evolved a . . . some sort of a semblance of a studio at the old Deming Hotel?

MOENCH: Yes. You see, it became very obvious that there wasn't enough program material here on the campus to really make a suitable kind of broadcasting station system or layout. So that more and more it became evident that something had to happen. As I recall, it must have been in the spring of 1927 -- probably in April or May -- that word came to us in the radio club that the decision had been made that Rose would not any longer maintain the going station on the campus.

I think that Dr. Frank Caspar Wagner, who was then president of Rose, had had some conversations with Mr. Carl Stahl, and it just had to happen that the station would be moved despite the fact that we in the radio club as students, were very disappointed. (laughs)

So we lost control, so to speak, of the station. But it became evident that some other move had to be made, and so while the actual transmitter and antenna stayed on in the small shack or building here on the campus, the control and operation was all taken over by a new group in town. It was licensed no longer to Rose Polytechnic Institute but rather to the Banks of the Wabash Broadcasting Association, or whatever the name was. I don't really recall the exact name. And that must have happened, from what you say, in about June of 1927. We have additional information out of the Rose yearbook both in 1927 and 1928 -- the Modulus. There is a report on the station and how it had functioned very briefly -- just a reference to it.



MOENCH: But, I believe, then that the station was maintained as the transmitting site for perhaps another year or so out here with, of course, the telephone line, which wasn't quite as [free of electrical] noise as you would like to have. It wasn't exactly hi-fi! Nevertheless, it did transmit the program material from the studio in town, and so from then on, the station was a commercial station and began to handle advertising.

MP: So the call letters of this noble experiment on the Rose campus was WRPI, the RPI standing for Rose Polytechnic Institute?

MOENCH: That's right.

MP: How about the position on the dial? There were people, I take it in Terre Haute, that could get the station?

MOENCH: Oh, yes.

MP: What would be the position on the dial?

MOENCH: Well, it would be very close to 1300 kilocycles [per second] and that's a little higher in frequency than the 1230 kilocycles and lower than the 1480 kilocycles which now are [the frequencies of] two of the most powerful stations doing AM broadcasting. And incidentally, I believe that at that time they hadn't yet had (I believe it was 1927 or something like that) . . . . They had a big radio conference under the auspices of the Department of Commerce of which Herbert Hoover was the cabinet officer [to set up policies on broadcasting. The Federal Radio Commission was established later.] Somewhat reluctantly, apparently, they decided to assign specific frequencies to the various stations. Because I recall that up to that point radio hams could operate on any [wave length] that was below 200 meters, which is 1500 kilocycles. [The broadcasting band ran from 200 meters to 600 meters.] But I believe it was only about at that time that specific frequency assignments were being made for the first time.

I notice in Charlie Cutler's article that he spoke of being on 1300 kilocycles or as we now call them, kilohertz.

MP: How about the power or what we call the strength of the station? How many watts?

MOENCH: It was nominally a 100-watt station. Today, most of the broadcasting stations with some punch are at least around 5000 watts.

MP: So under today's standards that would have a very limited range, although at that time, with very few stations on the air, could it penetrate very far?

MOENCH: I have no idea what the [actual range was.] I'm sure there must have been a bunch of cards received from broadcast listeners over this part of the country into Illinois and maybe Indianapolis and so on. But of course, all of that material has disappeared. There is nothing that you can find documentation on. My guess is that on good conditions of a night in winter when radio propagation is good, that we might have been heard as far as a couple hundred miles away but certainly not much more than that.

MP: Well, you know this station on the Rose campus developed in the late 1920s. We surmise somewhere in 1926. Nationwide broadcasting had just begun a few years earlier.

MOENCH: Right.

MP: So when this experimental station was instituted here at Rose, it must have been a rather significant development for the community and Rose itself. Here was a new medium that had the potential to change our lives. What was the climate like? What was the feeling in the community in here?

MOENCH: Well, my own guess is that when it started up, the number of families with radio receivers was rather limited. It took quite a few years before this became sort of a natural home appliance to have around. I know that I lived on South 15th Street, and it was with some difficulty that I convinced my dad that we should have a radio receiver with a loud speaker on it (chuckles) to listen to the local and distant stations. Of course, my interest was particularly also in the radio telegraphy -- amateur radio. I had my own home-built receiver using headphones and so on, but it was really, I would say, not until about [the] 1928 to 1930 era that people

MOENCH: generally had radio receivers. So I think the audiences were still rather small. I can't tell without looking up some of the data that would undoubtedly be in the various magazines like the old Radio News (I think that was the name of one of them) that followed the very rapid growth in the broadcast listening era. But I don't believe many people thought of radio as having much influence on their lifestyles, if you want to say it that way. In those days, it was just a curiosity more than anything else. Then gradually as the quality of the programming became better, and the band width for each station was wide enough to support pretty nearly what we'd call hi-fi today, then this became a very important part of what happened. Remember, there was no television, of course, at that time so that listening to the radio set became very important. Later on, we got into the Amos 'n' Andy era and so on.

MP: You know, being an experimental station here on campus, you didn't have the restrictions then, obviously, that broadcasters have now, requiring that you have to stay on the air each day for a certain period of time. So this station, I guess, was pretty flexible.

MOENCH: Oh, yes.

MP: If you felt like staying on the air, how long would you stay?

MOENCH: Well, just so long as there were some event that was worth putting on. So it was very much catch-as-catch-can and whether the students had time enough (chuckles) to turn it on and operate it. Of course, it had to be under the supervision of a licensed radio telephone operator and none of us on the campus had that license. So again, we were still dependent on the good auspices of somebody coming over from Martinsville, Illinois. You know, in those days also, Martinsville seemed to be a center for oil refinery-type work, and much of the dispatching of oil through the pipelines was done by long-wave radio instead of by telegraph or telephone, which today seems a little strange.

MP: So, if you had something to broadcast, the station transmitter was turned on and started.  
(laughter)

MOENCH: Right.

MP: Did the radio club itself have a responsibility for the operation of the station -- that is to assign the people who would do the air work and go on the air?

MOENCH: Oh, yes. But it was just all volunteers and very casual and certain ones of us who were interested could take time from, allegedly, our studying period in order to do it. But it was never on in the day-time. Just in the evening hours. That's when it was here on the campus. Then, of course, as soon as it became a commercial station, even though the setup was still here for the transmitting, it was all controlled from downtown. Then it had to follow more prescribed rules.

MP: Did the radio club then ever, I assume when they met, critique the operations or discuss what could be done? Approve the station or . . . .?

MOENCH: I am sure that we did, but here again, it was very fragmentary because, of course, it was WRPI as the name implies. It was really an experimental broadcasting station. It wasn't intended to provide a program service that you could always tune to and listen to.

MP: Did it do anything for promotion of the school itself?

MOENCH: Only in that it brought the name of the school into the homes to some extent in the local community. Of course, Rose has always had fine support from the Terre Haute community, and the start up of the station was a new indication of this support. It is kind of interesting to notice that by 1928 Rose began a series of biennial exhibits which were called the Rose Show. The first one happened in 1928 with Professor C. C. Knipmeyer in charge. I think that perhaps the activity of this radio station sort of generated the notion "why don't we bring or invite the people from the Terre Haute community to come out and see what is going on out here." There were very complimentary critiques or reviews of the Rose Show. For 14 years the Rose Shows were a huge success with some 5,000 people turning up in three nights for this sort of engineering and scientific event. It was part of a general program

MOENCH: of trying to make the city a little more aware of Rose Polytechnic Institute since in 1922 it had moved out from 13th and Locust. The old building there later became Gerstmeier High School. I don't believe that it had any great effect on funding for the Institute itself. In those days, we didn't know what development programs were. (chuckles)

MP: So really, it was not . . . it really didn't have a whole lot of impact did it? Because it was too experimental?

MOENCH: Right. And it was not something you could always turn to for music or news or anything of the sort. The news broadcasting came up considerably later. You know, just a few special events were broadcast. I think 1922 was the first time that KDKA began putting on regular programming. So you see, this was only about four or five years later that we got into . . .

MP: What kind of radio experiments in addition to actual broadcasting were conducted?

MOENCH: Very few. I recall that as seniors we each had to write a thesis. I did an experimental research paper under the guidance of Dr. Burton Howlett, who was head of the physics department. He was a very able professor. My thesis required measuring the patterns set up by waves going out from a very shortwave type of antenna. The fact that we had had this experience with the broadcasting station probably triggered my interest in recording these radiation patterns. But I really think that the name "experimental" meant more nearly what we were talking about (chuckles) in the way of a kind of catch-as-catch-can schedule. In fact, there was practically no schedule rather than actually trying to make measurements, which was what you might expect in experimental stations.

MP: So your role in the station itself was along the engineering lines, although you did do some air work?

MOENCH: Yes. But that was again completely without training. (long laugh) and . . .

MP: Let me ask you this -- we who are in the broadcasting business today, of course, have this fear somewhat -- if we put ourselves back into this era in the late 1920s and were going on the air, was there any fear by anybody who did air work or the people who tried to administer this thing that maybe somebody would say something on the air that they shouldn't?

MOENCH: Yes! Indeed! I could, if I felt like it, quote you a particular case. A good friend of mine was down on the football field on a very cold day and made some remark about the coverage here that didn't belong on the air. This sort of thing just was passed by. Nobody reacted to it that I know of because the whole thing was taken rather lightly as kind of a stunt, you know, rather than a service.

MP: Um hm. How about if we touch a little bit on the funding? So actually, this station was on the air, and it struggled so far as financing was concerned?

MOENCH: Right. Yes. Because you see, there were very minor expenses. The power was being supplied from Rose, on the campus here. The space -- there was no rent. But you had to pay the commercial operators and this was a great drain. So that there just weren't funds available from the Institute to run such a station.

MP: Elaborate, if you will, a little more on this radio fund. Now, was that a community effort?

MOENCH: I believe so. I think that it was probably advertised in the newspapers that people could send in their contributions to Mr. Stahl, or to the club (whatever it was called -- the Broadcast Listeners Club) in order to keep and maintain some semblance of service. You see, the actual operation that I speak of probably didn't exist for as long as an actual year. I believe it was probably on the order of, ummm, eight or nine months or something like that before it was obvious that we had to have some means of support. And, of course, by that time commercial broadcasting had begun to be significant, and there were revenues available if you could sell advertising.



MP:           This station on the campus had no revenues  
          [and] no commercial programs?

MOENCH:       None at all.

MP:           The community then generally, I assume, wanted  
          a radio station. They felt that this was something  
          that was needed?

MOENCH:       I believe that's right. As I recall it, they  
          supported the notion of making it a regular commercial  
          service.

MP:           Do you recall any interesting or unusual events  
          that were associated with broadcasts as such here?  
          I think you mentioned the one of the individual  
          who said something that perhaps he shouldn't have,  
          but I just can't imagine something not happening of  
          an interesting nature or an unusual nature.

MOENCH:       Well, there may have been. But we were pretty  
          much involved locally right here on the campus, and  
          there weren't anything except athletic events essen-  
          tially that were of any great significance. I'm  
          sure that as it became more and more a station  
          operated from the downtown studio that there were  
          some interesting events -- parades or something of  
          this kind. But the notion of having a reporter right  
          on the job to tell what was going on was still rather  
          novel, I think, at that time.

MP:           Was there support from the administration here  
          at Rose for the station for the time that it was  
          here?

MOENCH:       Yes. But not financial. (laughter) And I  
          know that in my conversation with our president at  
          the time -- Dr. Wagner -- I was very disappointed,  
          but he very gently pointed out there was just no way  
          that the school could continue to support it providing  
          enough money here to make it go. Even though as  
          students we didn't see all those limitations, we did  
          realize that the program material available here was  
          very limited.

MP:           Well, looking back, there is no possible way  
          that the station could have stayed here on the campus  
          much longer anyway, is there?

MOENCH: I'm sure that's true. And even though we liked the notion of the call letters representing Rose Polytechnic Institute, there was no great return on that investment, so to speak.

MP: Do you remember how you gave your call letters? Was it WRPI, Rose Polytechnic Institute?

MOENCH: Oh, no! It was WRPI because, of course, all of the stations in the broadcast band had to go by their call letters.

MP: Right. There was no little added phrase that located it on the campus of Rose Polytechnic Institute or anything?

MOENCH: No. Well, not regularly. It may have been ad libbed in by them.

MP: How about even though you were on the air only a limited number of hours a day, a few hours, were there any problems in keeping the transmitter on the air? For example, did you even knock off the air during a broadcast of a ball game or something?

MOENCH: Well, I'm sure there were power interruptions because, of course, the power supply was very much more limited. As a matter of fact, in those days, for the most part, all of the Institute was operated with power from a steam engine generator in our own boiler room. I'm not sure just how we managed to get the power over to this station. I think that at that time in the fall of 1926, the Deming dormitory named after Demas Deming who gave a gift in his will . . . . I think we had somehow managed to get a couple of wires across the lake over to the station and so it could very well be that there were many power interruptions. I don't remember the details. But electrical power in those days was not nearly as consistent and stable as it is today.

MP: I think you mentioned a short while ago that as a part of your program you actually played recorded music?

MOENCH: Oh, yes. There was no limitation on that. You could put on anything you wanted to. There was no such thing as paying royalties or anything of that sort in that day.

MP: Which is a rather interesting observation because back in those days the bulk of all radio programming was live.

MOENCH: Yes, I think that's right. Um hm.

MP: Live artists came into the studio to perform and so forth. So you actually had records then that were fed to -- what was it? Some kind of a console? Or . . .

MOENCH: No, just a record player. The old 78-rpm, shellac records and a pickup. Of course, people by that time, had gotten away from the acoustical type record player and were using pickups and audio amplifiers and loud speakers. But I don't remember the details of that. All of that equipment was pretty primitive.

MP: You lived in Terre Haute, of course, at the time the station was on the air?

MOENCH: Yes.

MP: And I assume that you had an opportunity many times to actually listen to the station from your home?

MOENCH: I must have had, although, of course, I don't have any recollection of what it sounded like (laughs), and I rather would guess that most of the times that it was on the air, I was involved out here one way or another -- at least during the times the students were here. Of course, later on, when it became WBOW, we listened with some regularity.

MP: By today's standards, I guess the quality of sound would be -- what? -- rather primitive?

MOENCH: Very poor. Very poor sound. Because, of course, the microphones were just the old carbon button microphones. You may have seen some of these that sort of looked like a, oh, about a 6-inch diameter pancake, more or less, with some holes and gauze over it. I'm not even sure we had something as fine as a double-button carbon microphone. That is, this was supposed to reduce some of the distortion. You could tell what they were saying, but you couldn't do much better than that.

MP: In some of those microphones you actually had to shout, didn't you?

MOENCH: Yes. (hesitates) Well, I think by that time, there were Western Electric amplifiers that use telephone repeater tubes that were sensitive enough that you didn't have /to shout/. But the quality would be about that of a telephone today. Not much better.

MP: Looking back, this station on the campus I assume was worthwhile for the times?

MOENCH: (emphatically) Oh, I think it was very much worthwhile from an educational point of view because /of/ the number of us /who/ were involved. /In/ the class following me, Royer Blair /also a Wiley High School graduate/ who retired several years ago from a fine career at Bell Telephone Laboratories in New York, /was/ involved. I'm sure that to some extent /our later careers were influenced by the WRPI experiences/. There is nothing like hands-on experience to really get a grasp of the concepts of how things work and so this /broadcasting station/, of course, was fairly new /and full of novel concepts/. We didn't have at that time anything like an electronics laboratory, so this had to take the place of it. It wasn't until, oh, five or six, seven years later that we began to teach electronics as such here on the campus.

MP: Rose Polytechnic would be the logical place to locate an experimental station at that time. It was . . .

MOENCH: Right. Um hm.

MP: . . . an engineering school and there had to be some expertise here in this new field.

MOENCH: It was being developed. Yes. Um hm.

MP: The radio club itself. It monitored the station? Listened to the station and also, I assume, also listened to what? Other stations around the country?

MOENCH: Yes. But, of course, you must remember that the main function of the Rose Tech Radio Club is in handling messages on the ham bands. The radio club

MOENCH: members would not really feel complimented if they were accused of listening to broadcast stations very much! (laughs) There was a certain amount of antipathy in fact because the radio amateurs up to just a few years before that were still using, to some extent, spark transmitters which made such a racket that nobody could hear a broadcasting station if you had a radio amateur sending [on] a spark transmitter nearby. Those went out in the very early '20s, but there still was kind of a fight there as to which was more important. (chuckles)

MP: Now when this station was on the air, there were homes then in the Terre Haute area that had the sophisticated radio receivers. This was a little later than the early crystal sets?

MOENCH: Oh, yes. Um hm. Yes. I can't really recall. I suppose my first crystal set dates back to about 1923 or 1924; but by about 1924, I had had a license as a radio operator but [at] the amateur level. I had equipment that both transmitted and received. Not spark, but a continuous wave tube-type oscillator [for telegraphy].

MP: Looking back, don't you feel that Rose did make a significant contribution to the mass media here in the Terre Haute area? This was the first broadcast station, [the] first broadcasts on the air, and, of course, radio has come a long way since then.

MOENCH: Yes. If feel that the mere fact that this station was established relatively early made it easier for the transition to commercial broadcasting to take place. I can't recall. It does seem to me it was several years before any rival broadcast station appeared in the Terre Haute area. I don't know what the dates are on that.

MP: Well, WTHI came on the air in 1948.

MOENCH: Gee, that late!

MP: So it was that late. So it was quite a fore-runner. These individuals who first sat down and became interested in radio -- I think you mentioned Mr. Stahl -- they had the foresight apparently to see what was ahead in this medium, that it had a lot of potential?

MOENCH: I think so. He was the type of man who was a booster for the Terre Haute community and, of course, probably was very active in the Chamber of Commerce and whatever we had at that time. And I think he recognized the fact that anything that would make Terre Haute a center of activity, regardless of whether you considered broadcasting cultural or artistic or whatever, news, would promote the city. I think also, he was just kind of a fan. Just like people are fans of baseball, he was a fan of broadcasting.

MP: Did he himself, I assume, appear on the campus? Was he ever involved in any of the . . . being on the air or . . .

MOENCH: Not that I recall.

MP: He just was a fan.

MOENCH: He probably presided at the Broadcast Listeners Club meetings and stirred them up and got them to contribute.

MP: What about the Broadcast Listeners Club? That sounds fascinating to me. What went on at those meetings?

MOENCH: Well, mostly, people just got up and bragged about (laughs) what long-distance reception they had accomplished listening to far away stations. If you stayed up late of a night and could hear a station like KOA out in Denver or even somebody on the West Coast like KNX or something like that, this was great stuff!

MP: I wonder if any of the wind went out of their sails when we added this station on the Rose campus and they could get something so close? (laughs)

MOENCH: (thoughtfully) No, because, of course, it was not a powerful station. It didn't block anything out so they could still listen to the others. Of course, these things are fads that come and go, and I think that I can still remember the great excitement when I actually heard PWX, the broadcasting station from Havana, Cuba. There was a thrill involved because it was so new. That's what it amounted to.



MP: And was the thrill there, I take it, when you actually could get your hands on it locally and say, "now here's a transmitter and here we go on the air from here"?

MOENCH: Oh, yes!

MP: Not as strong as Havana or KDKA Pittsburgh, but something, anyway.

MOENCH: Right! Yeah. Well, I think we felt pride in the fact that Rose was able to be kind of at the head of the procession and this sort of thing.

MP: I notice that a group of . . . you've said several times community citizens were interested in this. Was there any help at all, or any interest expressed by local government or was this something they stayed out of?

MOENCH: I don't believe they were even aware that it was going on. (both laugh) So that there was no way in which it would involve them because there were no licensing -- laws. There was no such thing as cable as we now have on TV and all that sort of thing -- franchises. So that it was just a hobby-type operation, really.

MP: Began as a hobby and mushroomed into something big a little later on. Any other recollections that you have of the times or of this particular period or this station itself?

MOENCH: No, I don't think that there were too many ideas that related to the radio station as such. This, of course, was a year or two ahead of the 1929 stock market crash, and I had, by that time, graduated and was working for the Bell Telephone Laboratories in New York City. It is just curious that when the crash occurred in October, 1929, on the stock market, people at first said, gee, it's a great time to buy some more stock because the prices had dropped. And then there was this long, horrible, sssslide (drawn out) down into very low level, and economic activity really dropped off to the point where it was really very painful for people. I think this was the right time for the station to come on. It was an upbeat time because there were lots of opportunities for a job and so on just in the next few years after this started, so that it was a period of growth. Of

MOENCH: course, broadcasting grew very rapidly in the late 1920s.

END OF SIDE 1

TAPE 1-SIDE 2

MP: In actually airing programs and getting the station on the air, do you think that Rose or this group who was affiliated on the campus that was very much interested in this learned anything else from this? Could you, yourself, for instance, see the potential not only of broadcasting but other spinoffs from this?

MOENCH: Well, of course, from our point of view some 52 or 53 years later, it's easy to say that hindsight is better than foresight. But really, I don't believe many of us, while we were caught up in the enthusiasm of the moment, /saw/ how things were improving and how there were many more stations on the air. I don't believe any of us foresaw the kind of information explosion (if you want to call it that) that has come along with television and with all the other functions. In fact, radio /communication/ itself was novel enough and exciting enough that it took us a long time to digest it. So it's difficult to be objective. But I don't think that we even remotely thought of such a thing as a television system or all these other things that have come along through the electronics.

MP: Once the station left the Rose premises and the Rose control, did the radio club itself continue to monitor what became WBOW, the first commercial station, or what? Did interest die?

MOENCH: No, well, you see, remember that this was kind of a special project of the radio club, because the radio club had nothing in its makeup to really make it associated with broadcasting as such. Ham radio is not broadcasting. It's point-to-point communication from one particular person to another person. So the radio club became very active particularly when Ted Hunter (Theodore Hunter) came on as an instructor and assistant professor in physics in the early '30s

MOENCH: and I came back to teach in 1930. The radio club really grew and had a lot of functions. But they weren't associated with broadcasting.

MP: How about these radio listening clubs in the city of Terre Haute and Carl Stahl?

MOENCH: I don't think they lasted more than a couple of years. I think it was a fad that grew and then died off very rapidly. But I am just guessing. I imagine it would be hard to find any record of them in the newspapers at that time because they were sort of a hobby group and they had their own communications. It would be kinda fun to try to look up to see if there is some kind of record of those clubs.

MP: Were you, yourself, involved in this radio listening group?

MOENCH: Only insofar as I would attend some of the meetings because of the fact that Mr. Stahl was supporting, through his efforts, the functions here for the radio station. I wasn't tremendously turned on to the broadcasting club idea. I thought it was a little bit strange that people would get that excited. Although, as I told you, I was excited myself when I tuned in a distant station for the first time. But that wears off pretty fast.

MP: I take it that as we look on this campus today, there is nothing left now of what that eight- or nine-month experiment was then?

MOENCH: Nothing at all.

MP: The equipment has disappeared?

MOENCH: All gone. It's all gone. And of course, it was home-brewed to some extent and, as I read in the description, you now have steel relay racks 19 inches wide, not these wooden frames and so on. We carefully built those out of dry hard maple and boiled them in paraffin (I don't remember why, but we thought that would reduce losses or something of that sort).

MP: Even that crude equipment today would be wonderful antique pieces, wouldn't they?

MOENCH: Oh, yeah. Yeah. That's true. But I think we still have in a display cabinet, one of the old 50-watt transmitting tubes that may have come from that time.

MP: In addition to yourself, are there any other individuals around that you can think of who were affiliated with this station?

MOENCH: I really don't believe so. For instance, I notice Harold Schatz's picture there. He was involved. He died several years back -- a classmate of mine. Ted Cliff was involved. He died even longer ago. And Clifford Lamb, who played the piano, was a Terre Haute boy who went with Walt Disney. He's gone. Roger Mace, who helped with building this frame I spoke of, he's been living out on the West Coast, and I've lost contact with him. So there just don't seem to be any people who were involved who are surviving in this community. There might be a few like Ralph Werner, who was president of the radio club when I was a freshman. He has been out in Omaha with A.T. & T. or someplace like that, and I'm sure he's retired so it would be very difficult to find anybody else to supplement the record.

MP: Looking back all those years, more than 50 years ago, this must have been a satisfying experience for you.

MOENCH: Oh, yes. Yes. I think it was great and I think it stimulated my interest in electrical engineering, particularly radio and communication, which I did get into then, as a career in effect. I had the great experience of working for Harold Black, the inventor of negative feedback. Without getting into the technical part of it, hi-fi equipment of all kinds embodies the notion of negative feedback to eliminate or reduce distortion. So the man I worked for in New York City for something over a year was the inventor and patenter of this basic concept of negative feedback. I was remarking to my class in communications system yesterday afternoon that I just fell into a very fine situation. There were real giants of the communication field who had been assembled by Mr. Black in the Saturday morning conference which I had the good fortune to attend as the secretary for him and make records of their deliberations. Harry Nyquist is famous. And I didn't know

MOENCH: all these things at the time. Hendrick Bode and a whole array of eminent engineers whose names are associated with the classics in electric and electronic circuit theory were involved in the first "carrier in cable" long distance telephone system. So that the chance to get started and have some back-ground on this sort of thing from Rose was a great opportunity.

MP: I think it took a special kind of dedication to keep this station on the air with literally baling wire and tape, didn't it? With such primitive equipment?

MOENCH: Oh, yeah. Um hm. But it worked! And I imagine there are a good many people in Terre Haute who remember hearing it. I don't.

MP: Do you think there are quite a few people that remember hearing it?

MOENCH: Oh, yes. I would think so because after all, there are people who are both older and younger than I am who would have had a chance to listen. It would be fun to know who they are.

MP: You acknowledge the fact that there were not many radio receivers at the time.

MOENCH: Not too many. No. No, it was later that they became common.

MP: I think you commented a little earlier in the interview that you're not completely aware of just exactly what the public response was to the station.

MOENCH: No, I don't think we ever made an effort to really compile anything; I'm sure we got cards, you know, back saying "we heard your station and so on." But what ever happened to them -- they were ephemeral.

MP: There was no method then, or no inclination then as there is now, to gauge public opinion to find out how many people were listening? What they would like to hear?

MOENCH: No. Well, not in the sense of preparing a documentation for license renewal or something of that sort, which is now an important function. No.

MOENCH: Nothing of that sort because the rules and regulations were very flexible and very modest. The main thing was to be somewhere near the right frequency on the dial.

MP: As I take it, back in those days you had merely a permit? Is that it? You know, now we have what we call licenses and . . .

MOENCH: It was a license, but I think it was an experimental license; and undoubtedly when the Institute could no longer support the operation, that was probably cancelled or turned in or whatever in order to transfer over to WBOW.

MP: Had the Federal Radio Commission come to the point back then where they said, "Now look, you'll be on the air so many hours a day and you will have so many hours pertaining to religion or public service" or anything like that? Or were you on your own?

MOENCH: I'm sure that we were on our own because we didn't live up to anything of that sort. But probably within the next year or two the regulations became much more stringent on this sort of thing.

MP: You've used the term several times here, "experimental station." [Is] that [because this station] differed from what few commercial stations there were on the air? Can you recall?

MOENCH: I think so. Yes. And I don't know, really, where the word "experimental" came from that Charlie Cutler used in this article. I don't even remember ever seeing the license document as such. But it undoubtedly must have been considered an experimental station, and that gave us much more latitude to be on the air whenever [we wanted to].

MP: And [did] the fact that it was on a college campus give you any special privileges?

MOENCH: Well, yes and no. There were special types of call letters for the amateur stations at the bigger universities -- Purdue, Wisconsin, Illinois and so on. All had call letters for their amateur stations which were experimental amateur stations which had more privileges than the usual ones. We never achieved that at Rose for the radio club's own



MOENCH: W9NAA station, which is still a set of call letters that apply. So I don't think that experimental meant much more than the fact that it didn't have to adhere to any specific schedules.

MP: Have we clarified in this interview that . . . . Was it Rose itself, or the Stahl group, the radio listening group that actually applied for the license?

MOENCH: I'm not sure. I think that it was actually the Institute itself. The president of the Institute probably signed the application because the license was issued to Rose Polytechnic Institute, not to the Terre Haute Broadcast Listeners Group. But I'm just going by my intuition rather than by anything that is really solid recollection. See I was a very young, green, freshman, when this started and a sophomore when we were doing the work. So I wasn't involved in the higher (laughs) echelons when others were making the decisions!

MP: You knew that it was coming, though.

MOENCH: Right.

MP: I guess the announcement was made to your club or the student body that this is what we are going to do and . . . .

MOENCH: Yes, and I sort of think that there were people on the technical side in the community. I mentioned Mr. Albert L. Stadermann, who was chief engineer of the telephone company. I think he knew some people in Washington who could help the thing along.

MP: But I assume these people, Mr. Stadermann and all . . . the fact that the station did finally establish here, that they gave of their time and efforts.

MOENCH: Oh, yeah. And his son Howard graduated from here later in the '30s and has had a fine career with the security agencies in Washington.

MP: Well, it's been very interesting. Do you have anything else that you would offer as you see it?

MOENCH: Only in a rather philosophical sense. It seems to me that along with the telephone, but in a much broader sense, radio communication, the notion of communicating with individuals as radio hams do and communicating through broadcasting, that is, to a lot of people is an extremely important medium for pulling together the people in our country. I think that one of the great satisfactions people who work in communications systems have, sort of, in the background of their thinking, is the fact that we have here a way to let the people understand how other people feel about things, and we can share common goals and common concerns. Particularly, this kind of communication is helpful in emergencies. I'm involved in civil defense. One of the great important features in this work is emergency communications so we can spot where people need help. So then, to me, radio is just as exciting as it was 55 years ago!

MP: Really, I think it's a feather in the cap of Rose that the medium of radio in the Terre Haute and the Vigo County area really had its roots right here on the Rose campus.

MOENCH: Well, that may be overstating it a little bit but pretty close.

MP: It was developed in the city of Terre Haute by some community-minded citizens but the actual facility, such as it was, was here on the campus.

MOENCH: That's right.

MP: Thank you very much.

END OF TAPE

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